WHAT IS CLAIMED IS:

1. A packet receiving apparatus in a communication system for transmitting a packet signal upon changing over a parameter of a transmit signal in accordance with conditions of a propagation path, and, when the packet signal cannot be received correctly on a receiving side, retransmitting the packet signal, combining the packet data received previously and the retransmitted packet data and executing decode processing based upon the combined packet data, said apparatus comprising:

   buffer means for storing receive packet data, which contains an error, with identifying information appended thereto;

   means for extracting packet data, which is to undergo retransmission combining, from said buffer means upon referring to the identifying information of a retransmission packet;

   combining means for combining retransmission packet data with the packet data extracted from said buffer means; and

   decoding means for executing decode processing based upon the combined packet data.

2. The apparatus according to claim 1, wherein the parameter is at least one of a number of multiple values in data modulation, a spreading factor and an encoding rate.

3. The apparatus according to claim 1, further comprising:

   means for discriminating whether result of decoding is correct or erroneous; and

   storing means for storing the combined packet data in said buffer means if the result of decoding contains an error;

   wherein said storing means stores number of combining operations in said buffer means together with the combined packet data, and said decoding means executes decode processing based upon a value obtained as a result of averaging the combined packet data using the number of combining operations.

4. The apparatus according to claim 3, wherein if result of decoding is correct, said buffer means

discards packet data having the identifying information.

5.   The apparatus according to claim 1, further comprising:

means for comparing a first parameter that has been attached to a retransmission packet signal and a second parameter that has been attached to packet data extracted from said buffer means; and

data cutting means for cutting out part of the packet data, which has been extracted from said buffer means, and inputting it to said combining means if result of the comparison is that the conditions of the propagation path at the time of retransmission are inferior.

6.   The apparatus according to claim 5, wherein said data cutting means includes:

means for discriminating data length of a retransmission packet based upon a value of the first parameter; and

means for extracting and inputting to said combining means a portion of data having a length equal to said data length from the packet data that has been extracted from said buffer means.

7.   The apparatus according to claim 6, further comprising:

means for discriminating whether result of decoding is correct or erroneous; and

storing means for storing the combined packet data in said buffer means if the result of decoding contains an error;

wherein said storing means stores only a remaining portion of data that has not undergone combining in said buffer means if the result of decoding is correct, and stores results of combining and a remaining portion of packet data that has not undergone combining in said buffer means if the result of decoding is erroneous.

8.   The apparatus according to claim 1, further comprising:

means for comparing a first parameter that has been attached to a retransmission packet signal and a second parameter that has been attached to packet data extracted from said buffer means; and

extraction means for extracting data of a

plurality of packets that are to undergo retransmission combining from said buffer means and inputting these packets of data to said combining means if result of the comparison is that the conditions of the

5 propagation path at the time of retransmission are superior;

wherein said combining means combines and outputs a plurality of portions of retransmission packet data and corresponding ones of data of a plurality of

10 packets that have been extracted from said buffer means.

9. The apparatus according to claim 8, wherein said extraction means extracts data of a plurality of packets that are to undergo retransmission combining from said buffer means using identifying information of

15 a plurality of packets, said identifying information having been attached to the retransmission packet signal.

10. The apparatus according to claim 1, further comprising:

20 means for applying punctured decode processing to a retransmission packet signal;

means for comparing a first encoding rate as a first parameter that has been attached to the retransmission packet signal and a second encoding rate

25 as a second parameter that has been attached to packet data extracted from said buffer means; and

means for cutting out part of the packet data, which has been extracted from said buffer means, and inputting it to said combining means if result of the

30 comparison is that the conditions of the propagation path at the time of retransmission are inferior;

wherein said combining means combines packet data prevailing after punctured decoding and the packet data that has been cut out of said buffer means.

35 11. The apparatus according to claim 1, further comprising:

means for applying punctured decode processing to a retransmission packet signal;

means for comparing a first encoding rate as a

40 first parameter that has been attached to the retransmission packet signal and a second encoding rate as a second parameter that has been attached to packet

data extracted from said buffer means; and

means for extracting data of a plurality of packets that are to undergo retransmission combining from said buffer means and inputting these packets of data to said combining means if result of the comparison is that the conditions of the propagation path at the time of retransmission are superior;

wherein said combining means combines and outputs a plurality of portions of retransmission packet data prevailing after punctured decoding and corresponding ones of data of a plurality of packets that have been extracted from said buffer means.

12. A packet transmitting apparatus in a communication system for transmitting a packet signal upon changing over a parameter of a transmit signal in accordance with conditions of a propagation path, and, when the packet signal cannot be received correctly on a receiving side, retransmitting the packet signal, combining the packet data received previously and the retransmitted packet data and executing decode processing based upon the combined packet data, said apparatus comprising:

buffer means for storing a transmitted packet with identifying information and a modulation parameter appended thereto;

means for deciding a modulation parameter based upon conditions of the propagation path; and

retransmitting means for deleting a packet, for which successful reception has been sent back from a receiving side, from said buffer means, and retransmitting a packet, for which reception failure has been sent back from the receiving side, upon attaching identifying information and a modulation parameter prevailing at time of retransmission, with the retransmission being performed based upon a modulation scheme that conforms to this modulation parameter.

13. The apparatus according to claim 12, further comprising:

means for comparing a modulation parameter that has been attached to packet data to be retransmitted and a modulation parameter conforming to the conditions

of the propagation path prevailing at the time of
retransmission; and

    means for retransmitting a plurality of packets,
which have been stored in said buffer means, as a
5   single retransmission packet signal upon attaching
respective ones of identifying information of these
packets if result of the comparison is that the
conditions of the propagation path at the time of
retransmission are superior to those that prevailed at
10 the time of the previous transmission.

14.   The apparatus according to claim 12, further
comprising:

    means for comparing a modulation parameter that
has been attached to packet data to be retransmitted
15 and a modulation parameter conforming to the conditions
of the propagation path prevailing at the time of
retransmission; and

means for retransmitting part of a packet, which has
been stored in said buffer means, as a single
20 retransmission packet signal upon attaching identifying
information if result of the comparison is that the
conditions of the propagation path at the time of
retransmission are inferior to those that prevailed at
the time of the previous transmission.